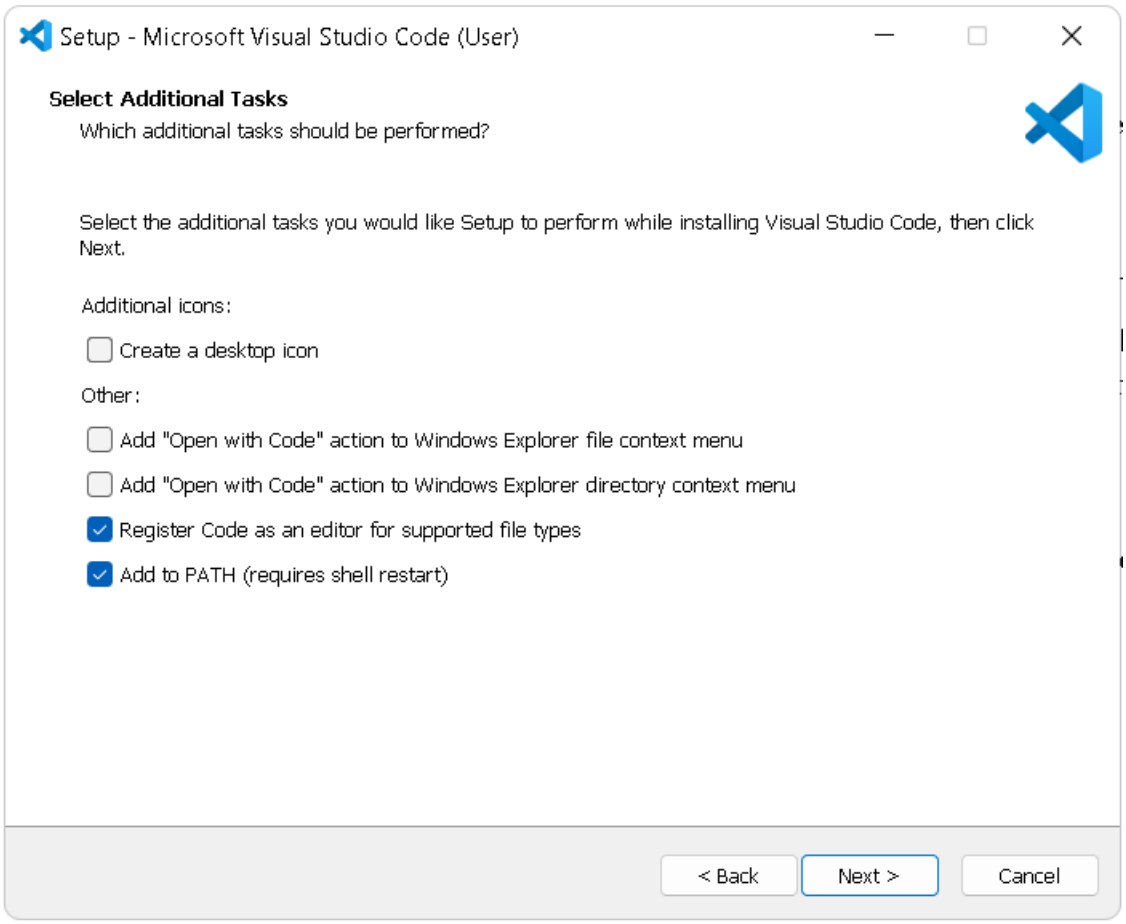
Installation of VS Code

Download Visual Studio Code:

Open your web browser and navigate to the official Visual Studio Code website: https://code.visualstudio.com/.

Click the "Download for Windows" button. This will download the installer file (.exe). Locate the downloaded installer file (usually in your "Downloads" folder) and double-click it to run the installer.

Follow the prompts in the installation wizard. You will need to accept the license agreement, choose an installation location, and select additional tasks such as creating a desktop shortcut or adding VS Code to the PATH.



Click the "Install" button to start the installation process.

Once the installation is complete, click the "Finish" button. You can choose to launch VS Code immediately by checking the corresponding box.

There are no specific prerequisites for installing VS Code on Windows 11, but it is recommended to have the latest Windows updates installed.

First-time Setup

Theme and Appearance: Go to File > Preferences > Color Theme and choose a theme that suits your preference (e.g., Dark+, Light+, etc.).

Font Size and Family: Open the settings and go to File > Preferences > Settings, and search for "Font Size" to adjust the font size. You can also search for "Font Family" to change the font family.

User Interface Overview

Activity Bar: Located on the far left, it provides access to different views like Explorer, Search, Source Control, Run and Debug, and Extensions.

Side Bar: Displays different views and panels depending on the selected activity. For example, the Explorer view shows your project files and folders.

Editor Group: The main area where you open and edit your files. You can split the editor into multiple groups to view files side by side.

Status Bar: Located at the bottom of the window, it shows information about the opened project and files, such as line and column number, language mode, Git branch, and more.

Command Palette

What is the Command Palette?: The Command Palette is a powerful tool in VS Code that allows you to access and execute commands quickly.

Accessing the Command Palette: Press Ctrl+Shift+P or F1 to open the Command Palette.

Common Tasks Using the Command Palette

Opening settings: Type "Preferences: Open Settings" and press Enter.

Installing extensions: Type "Extensions: Install Extensions" and press Enter.

Running tasks: Type "Tasks: Run Task" and press Enter.

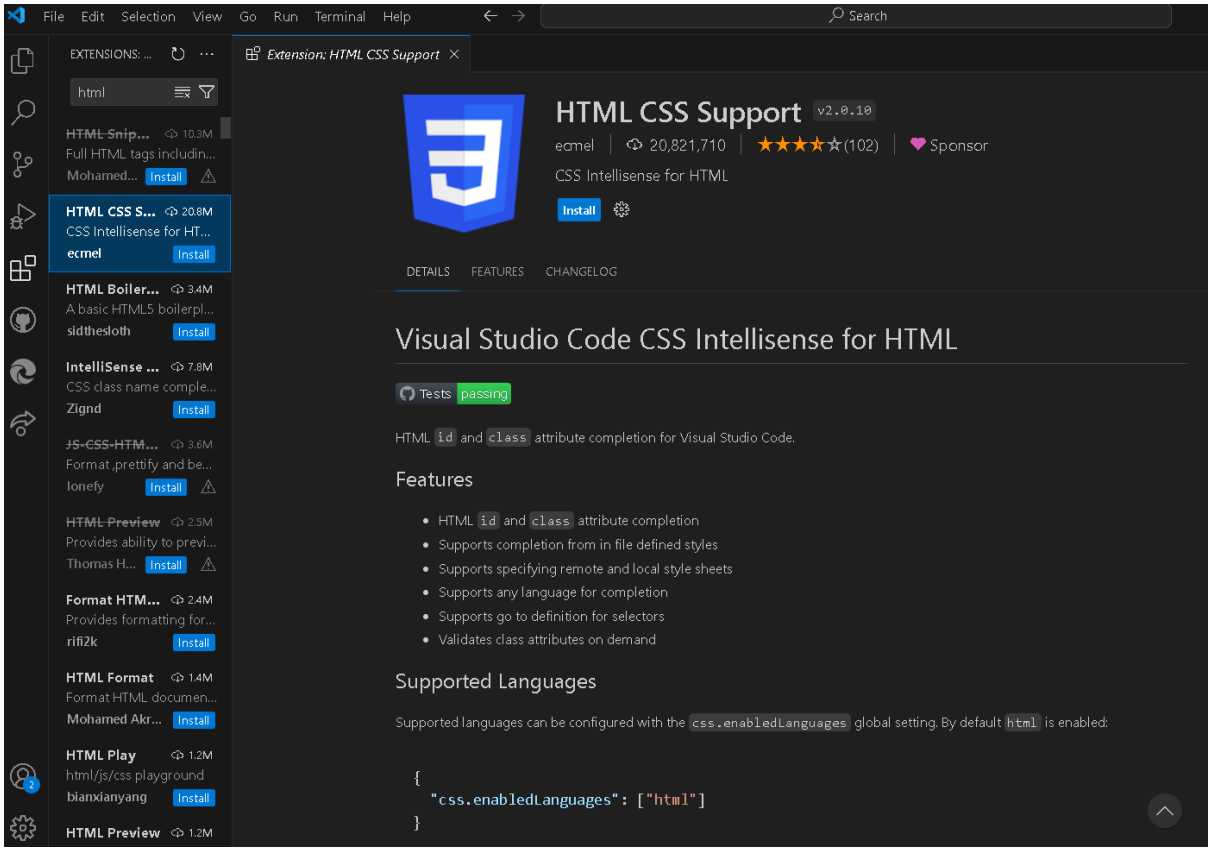
Git commands: Type "Git: Clone" or "Git: Commit" and press Enter.

Extensions in VS Code

Role of Extensions: Extensions enhance the functionality of VS Code by adding features such as language support, debuggers, linters, themes, and more.

Finding, Installing, and Managing Extensions:

Finding Extensions: Open the Extensions view by clicking the Extensions icon in the Activity Bar or pressing Ctrl+Shift+X. Search for extensions using the search bar at the top.



Installing Extensions: Click the "Install" button next to the extension you want to add.

Managing Extensions: View installed extensions in the Extensions view and disable, uninstall, or configure them as needed.

Essential Extensions for Web Development:

HTML, CSS, and JavaScript/TypeScript:

HTML CSS Support

JavaScript (ES6) code snippets

Frameworks and Libraries:

Vue.js

React Native Tools

Angular Language Service

Version Control:

GitLens

Git History

Integrated Terminal

Opening and Using the Integrated Terminal:

Opening the Terminal: Go to View > Terminal or press Ctrl+ `.

Using the Terminal: The integrated terminal opens at the bottom of the VS Code window. You can run commands, execute scripts, and manage your project directly from within the editor.

Advantages of the Integrated Terminal:

Direct access to the terminal without switching context.

Supports multiple terminal instances.

Integrated with VS Code features like debugging and tasks.

File and Folder Management

Creating, Opening, and Managing Files and Folders:

Creating Files and Folders: Right-click in the Explorer view and select New File or New Folder. Use the Command Palette (Ctrl+Shift+P), type "New File" or "New Folder".

Opening Files and Folders: Double-click a file in the Explorer view to open it in the editor. Use File > Open Folder or File > Open File.

Managing Files and Folders: Drag and drop files and folders in the Explorer view to move them. Use the context menu (right-click) for actions like renaming, deleting, or copying files and folders.

Efficient Navigation: Use Ctrl+P to quickly open files by name.

Navigate between open files using Ctrl+Tab.

Settings and Preferences

Customizing Settings

Accessing Settings: Go to File > Preferences > Settings or press Ctrl+,

Changing Theme: In the Settings, search for "Color Theme" and choose from the available themes.

Adjusting Font Size: Search for "Font Size" in the Settings UI and change the value as needed.

Modifying Keybindings: Go to File > Preferences > Keyboard Shortcuts or press Ctrl+K Ctrl+S to customize keybindings.

Debugging in VS Code

Setting Up and Starting Debugging

Open the Run and Debug View: Click the Run icon in the Activity Bar or press Ctrl+Shift+D.

Add a Debug Configuration: Click "create a launch.json file" to add a new debug configuration specific to your project.

Start Debugging: Set breakpoints in your code by clicking in the left margin of the editor. Click the green play button in the Run and Debug view to start debugging.

Key Debugging Features:

Breakpoints

Step over, step into, and step out

Watch variables

Debug console

Using Source Control

Integrating Git with VS Code

Initialize a Repository: Open your project folder in VS Code. Go to the Source Control view by clicking the Source Control icon in the Activity Bar. Click "Initialize Repository".

Making Commits: Stage changes by clicking the + icon next to the changed files. Enter a commit message in the message box and click the checkmark icon to commit.

Pushing Changes to GitHub: Click the "Publish to GitHub" button if you haven't pushed the repository yet. Enter your GitHub credentials and repository details. Use the Push button to push changes to the remote repository.